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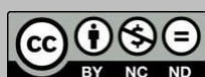
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CONCEPTIONS OF ENVIRONMENTAL EDUCATION OF TEACHERS OF THE MUNICIPAL EDUCATION NETWORK OF ARACAJU-SE

ABSTRACT

Environmental Education (EE) enables awareness, critical awareness and active positioning in relation to socio-environmental issues. Therefore, this article aims to understand conceptions about EE of teachers of the municipal education network of Aracaju, Sergipe State, Brazil. For that purpose, we conducted semi-structured interviews and analyzed the responses based on Discursive Textual Analysis. Conceptions are superficial and individualistic, reinforcing the fragmented and conservative socio-environmental educational practice, enhanced by a technical curriculum.

Keywords: Socio-environmental dimension; teacher training; teaching practice.

CONCEPÇÕES DA EDUCAÇÃO AMBIENTAL DE PROFESSORES(AS) DA REDE MUNICIPAL DE EDUCAÇÃO DE ARACAJU-SE

RESUMO

A Educação Ambiental (EA) possibilita a sensibilização, a consciência crítica e o posicionamento ativo frente às questões socioambientais. Portanto, este artigo objetiva compreender as concepções sobre EA de professores(as) da rede municipal de Aracaju-SE, a partir de entrevistas semiestruturadas, analisadas com base na Análise Textual Discursiva. Os resultados mostram que os respondentes possuem concepções superficiais e individualistas, o que reforça uma prática educativa socioambiental fragmentada e conservadora, potencializada por um currículo tecnicista.

Palavras-chave: Dimensão socioambiental. Formação docente. Prática docente.

CONCEPCIONES DE EDUCACIÓN AMBIENTAL DE DOCENTES DE LA RED EDUCATIVA MUNICIPAL DE ARACAJU-SE

RESUMEN

La Educación Ambiental (EA) posibilita la sensibilización, la conciencia crítica y el posicionamiento activo en relación a las cuestiones socioambientales. Así, este artículo tiene como objetivo comprender las concepciones de EA de los profesores de la red municipal de Aracaju-SE, a partir de entrevistas semiestructuradas, analizadas a la luz del Análisis Discursivo Textual. Son concepciones superficiales e individualistas, lo que refuerza una práctica educativa socioambiental fragmentada y conservadora, potenciada por un currículo técnico.

Palavras Clave: Dimensión socioambiental. Formación de profesores. Práctica docente.

1   INTRODUCTION

Over the years, the society has gradually begun to care less and less about the environment and its conservation. Thus, Environmental Education (EE) emerges as an essential practice, as it introduces the importance of environmental sustainability, helping individuals to develop a critical viewpoint about the environment and to create a feeling of commitment and responsibility for its conservation.

In this context, the school plays an important role in the process of educating and sensitizing citizens, allowing students to develop a more meaningful perspective of the environment, build their own critical sense, and change their attitude toward their socio-environmental responsibility. Therefore, the practice of EE in schools can be a determining factor to reduce problems that have affected the environment as a result of anthropic actions for many years.

Oliveira (2005) states that EE is not a one-off activity, but rather a learning process that takes place in a broad and continuous way aimed at inciting and developing responsible attitudes and ideas for the formation of a new relationship between human beings and the environment. In this sense, EE is perceived as an educational process that stimulates the construction of values and customs, while encouraging the formation of a more egalitarian society, whose development occurs in a sustainable way.

Jacobi (2003) highlights the need to carry out critical and innovative perception of EE and EE needs to be seen, above all, as a political act aimed at transforming society. Critical EE is based on democratic and emancipatory principles thus deviating from the principles of technical education, which is primarily aimed at diffusing and transmitting contents. Critical EE places education as a mediator in the social construction of knowledge that influences the lives of citizens. From this perspective, critical EE contributes to the formation of an ecological citizen, that is, a citizen who considers the interconnection of the social and environmental dimensions, concerned about socio-environmental issues with a collective thought (CARVALHO, 2004).

Critical EE is focused on the importance and role of the social and participatory dimension to build a just and environmentally balanced society. However, to be really effective and materialized, EE needs to be linked to social experiences that allow the construction of a meaningful concept by educational agents in the teaching and learning process:

> Regarding critical EE, it becomes important to reflect on political practices of exercising citizenship and democratic management, whose participation, a polysemic concept, is largely spoken about but little practiced in its fullness. Participation as an exercise of autonomy with responsibility and otherness and with the conviction that individuality is completed in the relationship with the other and in the world, in which individual freedom permeates collective freedom, has profound implications for EE (OLIVEIRA, 2012, p. 41).

In this sense, EE is understood as a process that develops emancipation and autonomy of all involved in the educational process, stimulating the participation of students, who come to feel part of the teaching and learning process.

Thus, EE practice is crucial and knowing the perceptions of teachers about the socio-environmental dimension becomes essential. In this context, this research is based on the following question: what are the conceptions about the socio-environmental dimension of teachers of the municipal network of Aracaju, Sergipe State, Brazil? Our objective is to identify conceptions about EE of teachers who work in three schools in the municipal network of Aracaju as well as to know their pedagogical practices related to the educational process.

2   HISTORICAL CONTEXT OF ENVIRONMENTAL EDUCATION

The human species, since its origin, has sought ways to act on the environment and modify it to meet its needs, even if this transformation has proven to be disadvantageous in some situations (NUNES, 2009). For Guimarães (2004), these modifications have become harmful, since anthropic actions have compromised the ability of the environment to balance itself through its natural processes. The same author also reports that these anthropic interferences on nature are not an inherent characteristic of humans, but rather a result from a production mode arising from the development model aimed primarily at obtaining resources in the human-nature relationship, determining a relationship of domination.

In chronological terms, socio-environmental issues became more evident in 1954 when Albert Schweitezer received the Nobel Peace Prize for giving greater visibility to environmental ethics. A few years later, in 1962, journalist Rachel Carson released her book, called "Silent Spring" in which she mentioned loss of quality of life due to the excessive use of chemical products and their impact on environmental resources. Since then, many environmental actions have been initiated worldwide (DIAS, 1992).

These socio-environmental issues happened on a small scale and in a regionalized way; nevertheless, they had not reached the current dimension, posing a threat of extinction to countless life forms, including human beings. Then, environment-related matters started to be discussed in conferences and publications in many parts of the world (DIAS; MARQUES; DIAS, 2016).

Due to the evolution of socio-environmental issues caused by human actions, the Council for Environmental Education was created in 1968. According to Dias (1992), still in 1968, 30 scientists from industrialized countries gathered for a meeting in Rome to discuss the then and future crisis of humanity, which became known as the Club of Rome and, in 1972, the report called "The Limits to Economic Growth" was produced. This report highlighted and warned about characteristics of environmental issues worldwide, such as the disorderly pace of population growth and the excessive use of non-renewable natural resources. Such factors made clear and urgent the need to build measures for the conservation of natural resources and highlighted the necessity to deal adequately with the disorderly population growth and its impacts. However, for this to happen, it was necessary to invest radically in changing the mind in terms of consumption and production (REIGOTA, 2017).

Then, in 1972, the United Nations (UN) held the First World Conference on the Human Environment, in Stockholm, Sweden, whose theme was pollution caused by industries (DIAS, 1992). This conference had global relevance and an important resolution was reached: the responsibility to educate citizens for the solution of socio-environmental problems. This process was called "Environmental Education" (REIGOTA, 2017).

In response to the guidelines given at the Stockholm Conference, the United Nations Educational, Scientific, and Cultural Organization (UNESCO) held in Belgrade, Serbia, the International Meeting on Environmental Education (1975), which sought to suggest a new concept of environmental development with eradication of poverty, illiteracy, exploitation, hunger, and contamination, which impelled the universalization of a more humane ethics (GONZÁLES-GAUDIANO, 2005).

One of the parts of the Belgrade Charter reinforces the importance of EE for the environment and for the social problems arising from environmental degradation:

> It is within this context that the foundations must be laid for a world program of Environmental Education that can make possible the development of knowledges and skills and values and attitudes, aiming at improving environmental quality and effectively improving quality of life for present and future generations (DIAS, 1992, p. 66).

In 1977, the Tbilisi Intergovernmental Conference was held place in Georgia. In this conference, globalization took a relevant step with the establishment of the most important milestone for the definition, development, and institutionalization of EE (RAMOS, 2001).

A few years later, in June 1992, in Rio de Janeiro, Brazil, the International Conference on the Environment took place. In the same year, Rio-92 was held and the document called Agenda 21 was generated, containing 27 principles that guide the search for sustainable development on a world scale (NEPOMUCENO, 2017).

After five years, in 1997, the meeting of the Commission for Sustainable Development of the United Nations (UN) was held in New York, United States (NEPOMUCENO, 2017). This event aimed to evaluate the measures to protect the environment that each participating country had taken since Rio-92. Also in 1997, the Kyoto protocol was implemented, signed by 84 countries which committed themselves to the responsibility to determine measures to reduce the emission of greenhouse gases, especially carbon dioxide.

Thus, recognizing the possibilities of social intervention to tackle socio-environmental issues, we believe that EE allows the establishment of political actions, since "environmental education, in particular, can build the possibility of political action while educating for citizenship, in the sense of contributing to form a collectivity that is responsible for the world it inhabits" (SORRENTINO, 2005, p. 287).

Finally, EE is a prolonged and constant learning process that seeks to stimulate and develop a rational and responsible attitude in order to create a new form of relationship between humans and the environment (OLIVEIRA, 2005).

3 METHODOLOGICAL PATHS

The choice of a method constitutes an important stage for the development of the research. According to Minayo and Sanches (1993), a good method helps the reflection on theoretical dynamics. Thus, according to the authors, the method used needs to be appropriate and executable for the theme investigated.

Based on the objectives mentioned above, the methodology used in this research is of a qualitative, exploratory, and descriptive nature, aiming to investigate and analyze the experiences carried out (MINAYO, 1993). The methodology allows to know the conceptions of managers and teachers toward the following previously defined categories: environmental education and sustainability.

In the first stage of the research, we carried out a bibliographical review and documentary research. The bibliographical review aimed to find theories and concepts discussed in the study field. The search was carried out in publications of periodicals and books using the descriptors "Environmental Education", "Critical Environmental Education", and "Sustainability".

Next, we established the inclusion criteria to delimit the schools to participate in the research, which were: municipal school units that carried out EE projects/actions in the year 2019 or 2020, according to the information provided by SEMED (Municipal Secretariat of Education of Aracaju). Four elementary schools and one kindergarten school that complied with these terms were identified from the visit to SEMED.

Only elementary schools were contacted, which does not mean that there is no importance in inserting EE into the school context of Early Childhood Education. On the contrary, EE must be present at all levels and teaching modalities, including daycare and preschool. However, we chose to work exclusively with elementary schools to minimize possible contrasts between the age groups of the classes and establish a standard to analyze projects and actions carried out in schools.

To establish contact with these schools, a letter of consent was sent to SEMED to obtain authorization to carry out the research in the municipal schools of Aracaju. After receiving the signed letter of consent, the research project was submitted to the Ethics Committee for Research Involving Human Beings of the Federal University of Sergipe through the "Plataforma Brasil" with approval under the number 4.330.619.

This research relied on the contribution of SEMED and SEMA (Municipal Secretariat for the Environment of Aracaju). SEMED coordinator of educational policies for diversity and SEMA coordinator of EE provided their contributions through the questionnaire and the interview. Initially, a semi-structured interview was carried out with the coordinator of educational policies of SEMED. However, due to the difficulty of making time available to participate in this activity remotely or in person, the script was sent in the form of a questionnaire via e-mail and was later returned with the respective answers. With the EE coordinator of SEMA, the semi-structured interview was carried out online through the Google Meet platform. Based on the answers of the questionnaire and the interviews, we sought to investigate whether there were training processes for teachers related to the socio-environmental dimension, especially promoted by these secretariats.

Continuing the research in the selected schools, we contacted the teachers and/or coordinators responsible for and/or participants in the EE projects, inviting them to participate in a semi-structured interview. In order to delimit the research sample, some

criteria for inclusion/exclusion of teachers and/or coordinators were elected, namely be part of the effective staff of teachers and/or coordinators of the Municipal Basic Education network, have been active in the EE project/activity carried out at the school between 2019 and 2020, accept participation, and have availability to participate in the research.

All research participants/volunteers signed a consent form, prepared in accordance with the norms of Resolution No. 466/2012 (BRASIL, 2013), which ensures autonomy, secrecy, and anonymity of the reports, in addition to presenting direct or indirect benefits of the research for the participating subjects. The interview sought to know the conceptions of these managers, teachers and/or coordinators about EE and sustainability.

The phase of development and creation of the interview scripts was carried out with great caution, since it is an important moment that requires time and care (MARCONI and LAKATOS, 2009). We can mention, for example, the clarity and outline of the desired objective, the consideration of the interviewer's understanding of the topic to be discussed, the assurance to the interviewees of secrecy of their reports and identity, the elaboration of a script with the questions significant data and the submission of the research to the Ethics Committee for Research Involving Human Beings through the "Plataforma Brasil".

The interview scripts were submitted to the validation process in which two professors and researchers in the field of education, from the Federal University of Sergipe at Aracaju, Sergipe State, Brazil, received and evaluated the form and the scripts. For Santos *et al*. (2020, p. 656):

> In qualitative research, validation is understood from another perspective, as an indication of research planned and carried out in a careful and reliable manner in which the methodological procedures used and the results of the study are consistent with the proposed objectives.

Validation of qualitative research instruments is essential to verify whether the instrument is capable of achieving the objectives and to carefully analyze the methodology consistency and the results credibility (OLLAIK; ZILLER, 2011; HERMIDA, ARAÚJO, 2006).

The interview scripts were also submitted to a pre-test with three Basic Education teachers from the State Education network of Sergipe to verify if the questions were elaborated in a clear and coherent way. According to Triviños (1987), Manzini (1991) and Rea and Parker (2000), the pre-test, or pilot study, also allows to verify the structure and clarity of the script through a previous interview with people who have characteristics

similar those of the target population. The scripts were sent via e-mail for the evaluators to assess the material and report any inadequacy of items.

Due to the COVID-19 pandemic, the interviews were carried out online, using the free digital platform Google Meet. After authorization from the participants, the recording of the audios and videos was started. In total, three interviews were conducted that lasted from 30 to 50 minutes on average.

The COVID-19 pandemic created difficulties to carry out the interviews. Some of the interviewees had relatives hospitalized due to complications from COVID-19 and were thus unable to participate in the interview. Others were overloaded in their respective professional activities also due to the COVID-19 pandemic and had difficulty finding available time to participate in the survey. However, when the interviews were actually carried out, the participants showed a clear commitment and willingness to contribute to the research.

In order to maintain the confidentiality and anonymity of the research participants, we refer to them as follows: the teachers were identified as P1, P2, and P3 and the managers as G1 and G2.

After completion, the interviews were transcribed the analysis process was started through the Discursive Textual Analysis (DTA) (MORAES; GALIAZZI, 2006; MORAES, 2003), which allowed identifying the lines and units of meaning previously defined in the speech of the interviewees.

The use of this type of analysis "[...] presents as an open tool, requiring users to learn to live with an approach that constantly requires the (re)construction of paths" (MORAES; GALIAZZI, 2006, p 120). Thus, in this type of methodology, there is no waiver of the researchers in relation to the analyses, which are directed from the political-ideological point of view, based on the social theory that guides researchers.

For this research, based on DTA, some categories were defined *a priori*, based on the theoretical framework used. These categories were used during the data analysis stage, namely:

a) Sustainability: the notion of sustainability implies a necessary interrelation between social justice, quality of life, environmental balance, and rupture with the current pattern of development (JACOBI, 2003).

b) Environmental Education: in a context in which diffuse collectivities are the emerging political agents, Environmental Education represents a gateway to a new type of political participation in reflective society, creating concrete possibilities to contribute significantly to the construction of a pedagogical

practice and counter-hegemonic political by reinventing the quality of the political universe and exerting influence on the process of forming political decisions (BARBOSA, 2008).

4   RESULTS AND DISCUSSION

The concepts of EE and sustainability presented by the interviewees ranged from a superficial and conservative view to a critical view. When asked about sustainability, P1 presented a very complex and critical answer. Taking into account the threats (environmental, genetic, etc.) of today's society, sustainability becomes an indispensable theme to think of alternatives to face global risks, which demands many changes in the ways of living and thinking, as well as changes in production and consumption. Sustainability poses the following question: we need to change lifestyles and thoughts. Due to the socio-environmental problems we face, we should not only think about how to live better in the future, but rather ensure sustainability of life in the present moment (BARBOSA, 2008). Thus, based on sustainability, we can rethink our day-to-day consumption, our way of life, and even our attitude towards the environment that surrounds us. He presented his definition of a sustainable school and stated that this is the kind of school that his school aims to become, but he also highlighted some challenges to achieve this practice. Thus, according to P1, sustainability is to provide:

> A school that maintains dialogue and that maintains education in a democratic perspective, where the subject has a voice to talk about his annoyances with the school about its values, its teaching, about citizenship [...]. A sustainable school avoids wasting water, energy, meals, tries to minimally organize a vegetable garden [...]. But this is almost impossible to achieve, because how not to waste lunch when leftovers cannot be donated and have to go to waste? How to work on sustainability in a school that doesn't even have a water record? This is an idealization, in practice, it is very difficult.

The report presented by P1 resembles, in some points, the principles of ecopedagogy. According to Avanzi (2004, p. 42):

> Ecopedagogy as a curricular approach implies the reorientation of school curricula in order to work with meaningful contents for the student and for the broader context, in which the principles of sustainability are included. In this line, the relevance of experiences, attitudes and values is defended, as well as the "practice of thinking about practice" [...]. The principles of democratic management of education systems, decentralization, autonomy and participation are equally paramount to ecopedagogy.

We can observe some principles in common between the way of working with sustainability perceived by P1 and the characteristics of ecopedagogy, such as: the democratic management of education systems and the democratic perspective of education, by giving voice and space to students and the work with sustainability to save water and energy. Thus, ecopedagogy addresses significant contents for students, as well as autonomy and participation in terms of citizenship. In this sense, "[...] Ecopedagogy incorporates this perspective and offers strategies, proposals and means for its concrete realization" (GADOTTI, 2000, p. 96).

We can observe that P1 shows a realistic and critical view about the difficulties of inserting sustainability in the school routine according to the reality of municipal schools. In addition, characteristics of critical EE are also present in the interviewee's report, when he mentions democracy, autonomy, and citizenship and not only the concern with the consumption of some resources, such as water and energy.

In turn, for P2, sustainability is:

> A way to relate better with the environment and with everything that involves our daily lives, mainly in terms of natural resources. Sustainability is to live in a way where you can be responsible for all of these resources that are around us, be it the river, the water, or the environment.

We can observe in this narrative a rather naive and salvationist perspective of sustainability. According to Marrul (2003), sustainability is not a problem that can be solved by choosing appropriate sustainable attitudes (recycling or waste disposal, for example) that are suggested by experts from various areas of knowledge.

Among the interviewees' conceptions of what they understand by EE, P1 presented a more complex and critical approach. For P1, EE is "education that works the subject in an integral way, is not limited to practices focused on environmental issues, works with reflection, citizenship, ethics, care for oneself, for the other, and also for natural resources."

For Layrargues and Lima (2013), in critical EE, it is not enough to strive for a new culture in the human-nature relationship. It is necessary, at the same time, to seek a new society. It is not just a question of enabling transformations in sectors, but promoting change in all dimensions, favoring and contributing to transformations in knowledge, institutions, social and political relations, and ethical and cultural values. The critical aspect

of EE seeks concrete and profound transformations from the individual to the collective, but always in a collective process.

P2, on the other hand, presented a superficial and fragile conception, since, initially, he considered EE as a discipline, but adjusted his speech: "It is a discipline, in fact, a discussion that is related to the awareness and understanding of what the environment is and everything that involves the environment."

We can thus relate the perception of EE addressed by P2 with the conservative approach of EE presented by Guimarães (2004). According to the author, the conservative approach:

> [...] is based on this worldview that fragments reality, simplifying and reducing it, losing the richness and diversity of the relationship. Centered on the part, it veils the wholeness in its complex relationships, similar to a camera that blurs the landscape, when we focus on a part. This produces a pedagogical practice aimed at the individual (in the part) and in the transformation of his behavior (individualist and behavioralist education) (GUIMARÃES, 2004, p. 26-27).

Consequently, P2's speech is limited to a view of protecting the environment and the development of an individualizing environmental awareness. This awareness is not a premise of critical EE, which, in fact, seeks reflection, autonomy, participation and citizenship. Therefore, we can see a fragmented and reductionist view of EE, as it is seen as a discipline and also as a specific initiative that is limited to the environment. According to P2's report, EE is not a continuous process, reinforcing that in his perspective EE has a conservative and fixed character. This vision of EE is not the most suitable for educators, since, in line with Oliveira (2005), EE is not a one-off activity, but rather a learning process that occurs in a broad and continuous way, seeking to incite and develop responsible attitudes and ideas for the formation of a new way of relations between human beings and the environment. Thus, EE is considered a process that encourages the deconstruction of values, customs, and encourages the formation of a more egalitarian society that develops in a sustainable way.

P3's view can be considered intermediate between the conceptions of P1 and P2, since, P3 stated his perception of EE as "it is a work in education awareness of students of what environment and citizenship are and their responsibility toward the environment and also that of managers."

From this statement, we can identify points that relate to critical EE, which are citizenship and socio-environmental responsibility. This aspect of EE, in line with

Guimarães (2004), seeks to develop educational environments that mobilize intervention processes into the reality and its socio-environmental issues to be able to overcome and face paradigmatic traps and promote a critical and reflective educational process. The paradigmatic trap, according to Guimarães (2004), generates comprehensive limitation and discursive incapacity and it also produces conservative practices, away from theories considered critical. Still in line with Guimarães (2006), educators are increasingly concerned about working with environmental issues in the day-to-day school activities. The number of schools carrying out EE projects is increasing; however, the socio-environmental reality of the communities in which these schools are inserted does not undergo many changes. This happens because these educators, however well-intentioned they may be, reproduce their practices according to the paradigms developed by modern society. Paradigms that were acquired in their daily lives thus perpetuating a reality disseminated by the hegemonic pattern. This reality established by these paradigms is defined by the author of "paradigmatic trap". This trap would be the limited, naive and fragmented practice of socio-environmental problems, a romanticized view of them.

Still about P3's approach to EE, references to conscience and the environment are points that are again similar to the ideas of the conservative aspect of EE. Limiting concerns toward the environment generates a superficial and fragmented view of what EE is and the numerous socio-environmental issues that are related to this dimension. This vision needs to advance to critical EE, which, according to Guimarães (2004), is responsible for developing pedagogical activities that overcome and face the transmission or deposit of ecologically correct knowledge as well as the uniqueness of awareness activities, which involve the students affectively with the environmental cause, as an action of development of EE.

Regarding the conception about EE of managers, G1 states that there is a concern about carrying out EE projects in schools where there is youth protagonism in EE, in the body where she works (SEMED):

> We carried out the Ujacará Project with SEMA, with 7- to 8-year-old students who visited the "Parque da Sementeira" and watched a theater play about the environment. There was also the visitation of students to spaces such as the oceanarium, "Parque do Poxim", among others. We seek to carry out projects in EE with youth protagonism (G1).

This relationship between learning at school and learning in external environments refers to the union between theory and practice. According to Quintas (2004, p. 134):

> In this sense, theory and practice are inseparable, they are sides of the same coin. Therefore, achieving the learning objectives necessarily involves articulating the structuring elements of the teaching-learning process: content, subjectivity, and context from the perspective of the theory-practice unit.

Thus, the G1's report shows that there is a search for classes and dynamic activities that take students outside of the school environment and that also give them space to feel part of the learning process. However, we must be attentive to avoid specific and fragmented projects that go against the critical and reflective process of transforming EE. The concern with a more dynamic education frame allows the convergence between theory and practice, which is an extremely positive point for the educational process, because, according to Quintas (2004, p. 134):

> [...] theory and practice are inseparable and they are sides of the same coin. Therefore, achieving the learning objectives necessarily involves articulating the structuring elements of the teaching-learning process: content, subjectivity and context from the perspective of the theory-practice unit.

According to G2, SEMA manager, actions are carried out both inside and outside the school. Some examples of activities inside the school are: development of an orchard, workshops, theater play about dengue, and workshops with recyclables. Outside the school, there are guided tours to urban environments. Therefore, it is possible to perceive that there is a concern in carrying out activities in formal and non-formal teaching environments.

This predominance in carrying out activities inside and outside the school is related to the National Environmental Education Policy (PNEA), which was published based on Law No. 9.795/99, which prescribes in its Item 2 that "environmental education is an essential and permanent component of national education, which must be present, in an articulated way, at all levels and modalities of the educational process, in a formal and non-formal way" (BRASIL, 1999, p.1). For EE, it is essential to insert practices that involve environments other than school environments in order to allow the development of a sense of responsibility and belonging on the part of students thus favoring the promotion of EE based on values and significance both for the school and for the community.

One issue reported by all interviewees was the lack of continuing education focused on the socio-environmental dimension. One of the teachers interviewed reported the need for more complete education on EE, as today he feels unprepared and without sufficient

knowledge to develop an EE that encourages criticality, autonomy, and reflection and that brings effective changes to the students, making them participants in society.

The lack of continuing education directed to EE may represent one of the reasons why the interviewed teachers present fragmented conceptions about socio-environmental issues and some concepts related to EE. This fragility is reflected in the practice of these educators who end up developing a conservative approach of EE, not stimulating criticality, participation, and autonomy in the face of socio-environmental problems.

Since these educators did not receive initial or continuing training focused on socio-environmental issues, it is understandable that they do not feel prepared to address this process in their pedagogical practices. This unpreparedness can be identified in their speeches. For instance, in P2's perspective, EE "is a discipline, in fact, a discussion that is related to awareness and understanding of what the environment is and everything that involves it". This reveals a conservative view, as mentioned at the beginning of this topic. P3's report, also mentioned above, features both a critical and a conservative perspective. Therefore, teachers need training that addresses comprehensively the process of EE, a training that allows them to work with students to develop a critical, democratic, and emancipatory perspective, as well as social participation and citizenship, always focusing on socio-environmental issues.

An alternative to this refers to the curriculum of undergraduate courses. The presence of curricular components or content aimed at socio-environmental issues in these courses would contribute to the formation of teachers on environmental knowledge, enabling them to develop EE activities in the classroom in a critical, transformative, emancipatory, and democratic way.

Another important reason for teachers to receive complex training on the socio-environmental dimension is the fact that teachers received a fragmented and naive view of EE. Teachers who perceive EE as a specific action related only to recycling, selective collection, and saving water and electricity transmit this same limited view to their students.

A question that arises is how much the Municipal Environmental Education Policy (PEMA) is contributing to the promotion of EE in school environments, since, according to this policy, in its article 3, EE must "[...] be present, in an articulated manner, at all levels and modalities of the educational process [...]". However, it was possible to observe that, in addition to presenting a reductionist and conservative perspective about EE and sustainability, teachers were also unaware of the existence of PEMA. Therefore, it is

possible to establish a relationship between the fragility of teachers' conceptions and their lack of knowledge regarding Law No. 3.309/2005.

If we reflect on the guidelines of this policy, it is presumable that the implementation of EE in school environments can be achieved. However, how is it possible to carry out this process in schools, if teachers, indispensable actors in the educational process, are not aware of the existence of this policy? Public policies are developed to solve social demands, and socio-environmental issues are included in these demands.

Thus, these policies need to be disseminated in the society, especially to individuals who actively participate to meet these demands, in this case, the teachers. In order for public policies to achieve results in the face of socio-environmental issues through EE, they need to be actually implemented and that means to apply their guidelines have to be developed, inside and outside the school environment.

This research had many limiting factors, because of the COVID-19 pandemic. The pandemic hindered contact with managers and teachers, who were the subjects heard in the research, preventing a better contact with the pedagogical practices carried out in municipal schools in Aracaju that address the socio-environmental dimension.

However, despite the difficulties, it was possible to achieve the research objective. In short, it was possible to analyze, based on the reports of administrators and teachers, that school practices related to sustainability basically boil down to conservative practices, such as recycling activities, selective collection, and reuse of materials. These are important actions, but they need to move forward, to overcome a traditional EE that contributes in a timid way to the process of forming citizens committed to life and its perpetuation in a fair and balanced way.

5   FINAL REMARKS

Among the interviewees' conceptions about EE, there was predominance of a view with the perspective of a traditional, fragile, and conservative EE. This perspective offers difficulties for the implementation of critical EE, both in school environments and in communities, which also participate in search for solutions of socio-environmental issues. However, it was also observed that some teachers recognize the importance and need to implement EE that encourages critical thinking, participation, and citizenship thus allowing the development of EE that acts as a political action directly contributing to the educational

process. and to the formation of a participatory and environmentally responsible community.

There is a common interest of educators, students, and communities to face and solve environmental problems, as these issues affect all of these groups. However, it is necessary for teachers to know how to insert this process into their pedagogical practices to develop a critical and participatory perspective in students, a perspective that can reach communities and also the civil society.

The implementation of critical EE becomes unattainable without adequate training for teachers. Therefore, it is of paramount importance to offer educators continuing education that addresses the socio-environmental dimension in a complex and critical way to enable the development of critical, emancipatory, and democratic EE in the classroom, forming citizens who can contribute to tackling socio-environmental issues collectively.

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